

RAW SEQUENCE LISTING

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Application Serial Number: 10/534,130A
Source: PCF
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RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/534,130A

DATE: 05/23/2006
TIME: 14:02:49

Input Set : A:\21415015.APP
Output Set: N:\CRF4\05232006\J534130A.raw

3 <110> APPLICANT: FRAZER, IAN HECTOR
 5 <120> TITLE OF INVENTION: A METHOD FOR OPTIMISING GENE EXPRESSION USING
 SYNONYMOUS
 6 CODON OPTIMISATION
 8 <130> FILE REFERENCE: 21415-0015US
 10 <140> CURRENT APPLICATION NUMBER: 10/534,130A
 11 <141> CURRENT FILING DATE: 2005-05-06
 13 <150> PRIOR APPLICATION NUMBER: PCT/AU03/01487
 14 <151> PRIOR FILING DATE: 2003-11-10
 16 <150> PRIOR APPLICATION NUMBER: 60/425,163
 17 <151> PRIOR FILING DATE: 2002-11-08
 19 <160> NUMBER OF SEQ ID NOS: 126
 21 <170> SOFTWARE: PatentIn version 3.3
 23 <210> SEQ ID NO: 1
 24 <211> LENGTH: 714
 25 <212> TYPE: DNA
 26 <213> ORGANISM: Artificial Sequence
 28 <220> FEATURE:
 29 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
 30 humanized GFP sequence
 32 <220> FEATURE:
 33 <221> NAME/KEY: CDS
 34 <222> LOCATION: (1)..(711)
 36 <400> SEQUENCE: 1 .
 37 agc aag ggc gag gaa ctg ttc act ggc gtg gtc cca att ctc gtg gaa 48
 38 Ser Lys Gly Glu Leu Phe Thr Gly Val Val Pro Ile Leu Val Glu
 39 1 5 10 15
 41 ctg gat ggc gat gtg aat ggg cac aaa ttt tct gtc agc gga gag ggt 96
 42 Leu Asp Gly Asp Val Asn Gly His Lys Phe Ser Val Ser Gly Glu Gly
 43 20 25 30
 45 gaa ggt gat gcc aca tac gga aag ctc acc ctg aaa ttc atc tgc acc 144
 46 Glu Gly Asp Ala Thr Tyr Gly Lys Leu Thr Leu Lys Phe Ile Cys Thr
 47 35 40 45
 49 act gga aag ctc cct gtg cca tgg cca aca ctg gtc act acc ttc tct 192
 50 Thr Gly Lys Leu Pro Val Pro Trp Pro Thr Leu Val Thr Phe Ser
 51 50 55 60
 53 tat ggc gtg cag tgc ttt tcc aga tac cca gac cat atg aag cag cat 240
 54 Tyr Gly Val Gln Cys Phe Ser Arg Tyr Pro Asp His Met Lys Gln His
 55 65 70 75 80
 57 gac ttt ttc aag agc gcc atg ccc gag ggc tat gtg cag gag aga acc 288
 58 Asp Phe Phe Lys Ser Ala Met Pro Glu Gly Tyr Val Gln Glu Arg Thr
 59 85 90 95
 61 atc ttt ttc aaa gat gac ggg aac tac aag acc cgc gct gaa gtc aag 336
 62 Ile Phe Phe Lys Asp Asn Gly Asn Tyr Lys Thr Arg Ala Glu Val Lys

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63	100	105	110	
65	ttc gaa ggt gac acc ctg gtg aat aga atc gag ctg aag ggc att gac			384
66	Phe Glu Gly Asp Thr Leu Val Asn Arg Ile Glu Leu Lys Gly Ile Asp			
67	115	120	125	
69	ttt aag gag gat gga aac att ctc ggc cac aag ctg gaa tac aac tat			432
70	Phe Lys Glu Asp Gly Asn Ile Leu Gly His Lys Leu Glu Tyr Asn Tyr			
71	130	135	140	
73	aac tcc cac aat gtg tac atc atg gcc gac aag caa aag aat ggc atc			480
74	Asn Ser His Asn Val Tyr Ile Met Ala Asp Lys Gln Lys Asn Gly Ile			
75	145	150	155	160
77	aag gtc aac ttc aag atc aga cac aac att gag gat gga tcc gtg cag			528
78	Lys Val Asn Phe Lys Ile Arg His Asn Ile Glu Asp Gly Ser Val Gln			
79	165	170	175	
81	ctg gcc gac cat tat caa cag aac act cca atc ggc gac ggc cct gtg			576
82	Leu Ala Asp His Tyr Gln Gln Asn Thr Pro Ile Gly Asp Gly Pro Val			
83	180	185	190	
85	ctc ctc cca gac aac cat tac ctg tcc acc cag tct gcc ctg tct aaa			624
86	Leu Leu Pro Asp Asn His Tyr Leu Ser Thr Gln Ser Ala Leu Ser Lys			
87	195	200	205	
89	gat ccc aac gaa aag aga gac cac atg gtc ctg ctg gag ttt gtg acc			672
90	Asp Pro Asn Glu Lys Arg Asp His Met Val Leu Leu Glu Phe Val Thr			
91	210	215	220	
93	gct gct ggg atc aca cat ggc atg gac gag ctg tac aag tga			714
94	Ala Ala Gly Ile Thr His Gly Met Asp Glu Leu Tyr Lys			
95	225	230	235	
98	<210> SEQ ID NO: 2			
99	<211> LENGTH: 237			
100	<212> TYPE: PRT			
101	<213> ORGANISM: Artificial Sequence			
103	<220> FEATURE:			
104	<223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic			
105	humanized GFP sequence			
107	<400> SEQUENCE: 2			
108	Ser Lys Gly Glu Glu Leu Phe Thr Gly Val Val Pro Ile Leu Val Glu			
109	1	5	10	15
112	Leu Asp Gly Asp Val Asn Gly His Lys Phe Ser Val Ser Gly Glu Gly			
113	20	25	30	
116	Glu Gly Asp Ala Thr Tyr Gly Lys Leu Thr Leu Lys Phe Ile Cys Thr			
117	35	40	45	
120	Thr Gly Lys Leu Pro Val Pro Trp Pro Thr Leu Val Thr Thr Phe Ser			
121	50	55	60	
124	Tyr Gly Val Gln Cys Phe Ser Arg Tyr Pro Asp His Met Lys Gln His			
125	65	70	75	80
128	Asp Phe Phe Lys Ser Ala Met Pro Glu Gly Tyr Val Gln Glu Arg Thr			
129	85	90	95	
132	Ile Phe Phe Lys Asp Asp Gly Asn Tyr Lys Thr Arg Ala Glu Val Lys			
133	100	105	110	
136	Phe Glu Gly Asp Thr Leu Val Asn Arg Ile Glu Leu Lys Gly Ile Asp			
137	115	120	125	

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140 Phe Lys Glu Asp Gly Asn Ile Leu Gly His Lys Leu Glu Tyr Asn Tyr
141 130 135 140
144 Asn Ser His Asn Val Tyr Ile Met Ala Asp Lys Gln Lys Asn Gly Ile
145 145 150 155 160
148 Lys Val Asn Phe Lys Ile Arg His Asn Ile Glu Asp Gly Ser Val Gln
149 165 170 175
152 Leu Ala Asp His Tyr Gln Gln Asn Thr Pro Ile Gly Asp Gly Pro Val
153 180 185 190
156 Leu Leu Pro Asp Asn His Tyr Leu Ser Thr Gln Ser Ala Leu Ser Lys
157 195 200 205
160 Asp Pro Asn Glu Lys Arg Asp His Met Val Leu Leu Glu Phe Val Thr
161 210 215 220
164 Ala Ala Gly Ile Thr His Gly Met Asp Glu Leu Tyr Lys
165 225 230 235
168 <210> SEQ ID NO: 3
169 <211> LENGTH: 18
170 <212> TYPE: DNA
171 <213> ORGANISM: Artificial Sequence
173 <220> FEATURE:
174 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
175 leader sequence
177 <220> FEATURE:
178 <221> NAME/KEY: CDS
179 <222> LOCATION: (1)..(18)
181 <400> SEQUENCE: 3
182 gca gca gca gca gca gca 18
183 Ala Ala Ala Ala Ala Ala
184 1 5
187 <210> SEQ ID NO: 4
188 <211> LENGTH: 6
189 <212> TYPE: PRT
190 <213> ORGANISM: Artificial Sequence
192 <220> FEATURE:
193 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
194 leader sequence
196 <400> SEQUENCE: 4
197 Ala Ala Ala Ala Ala Ala
198 1 5
201 <210> SEQ ID NO: 5
202 <211> LENGTH: 18
203 <212> TYPE: DNA
204 <213> ORGANISM: Artificial Sequence
206 <220> FEATURE:
207 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
208 leader sequence
210 <220> FEATURE:
211 <221> NAME/KEY: CDS
212 <222> LOCATION: (1)..(18)
214 <400> SEQUENCE: 5

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215 gcg gcg gcg gcg gcg gcg
216 Ala Ala Ala Ala Ala Ala
217 1 5
220 <210> SEQ ID NO: 6
221 <211> LENGTH: 6
222 <212> TYPE: PRT
223 <213> ORGANISM: Artificial Sequence
225 <220> FEATURE:
226 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
227 leader sequence
229 <400> SEQUENCE: 6
230 Ala Ala Ala Ala Ala Ala
231 1 5
234 <210> SEQ ID NO: 7
235 <211> LENGTH: 18
236 <212> TYPE: DNA
237 <213> ORGANISM: Artificial Sequence
239 <220> FEATURE:
240 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
241 leader sequence
243 <220> FEATURE:
244 <221> NAME/KEY: CDS
245 <222> LOCATION: (1)..(18)
247 <400> SEQUENCE: 7
248 gct gct gct gct gct
249 Ala Ala Ala Ala Ala Ala
250 1 5
253 <210> SEQ ID NO: 8
254 <211> LENGTH: 6
255 <212> TYPE: PRT
256 <213> ORGANISM: Artificial Sequence
258 <220> FEATURE:
259 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
260 leader sequence
262 <400> SEQUENCE: 8
263 Ala Ala Ala Ala Ala Ala
264 1 5
267 <210> SEQ ID NO: 9
268 <211> LENGTH: 18
269 <212> TYPE: DNA
270 <213> ORGANISM: Artificial Sequence
272 <220> FEATURE:
273 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
274 leader sequence
276 <220> FEATURE:
277 <221> NAME/KEY: CDS
278 <222> LOCATION: (1)..(18)
280 <400> SEQUENCE: 9
281 gcc gcc gcc gcc gcc gcc

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18

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Input Set : A:\21415015.APP
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282 Ala Ala Ala Ala Ala Ala
 283 1 5
 286 <210> SEQ ID NO: 10
 287 <211> LENGTH: 6
 288 <212> TYPE: PRT
 289 <213> ORGANISM: Artificial Sequence
 291 <220> FEATURE:
 292 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
 293 leader sequence
 295 <400> SEQUENCE: 10
 296 Ala Ala Ala Ala Ala Ala
 297 1 5
 300 <210> SEQ ID NO: 11
 301 <211> LENGTH: 18
 302 <212> TYPE: DNA
 303 <213> ORGANISM: Artificial Sequence
 305 <220> FEATURE:
 306 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
 307 leader sequence
 309 <220> FEATURE:
 310 <221> NAME/KEY: CDS
 311 <222> LOCATION: (1)..(18)
 313 <400> SEQUENCE: 11
 314 aga aga aga aga aga aga 18
 315 Arg Arg Arg Arg Arg Arg
 316 1 5
 319 <210> SEQ ID NO: 12
 320 <211> LENGTH: 6
 321 <212> TYPE: PRT
 322 <213> ORGANISM: Artificial Sequence
 324 <220> FEATURE:
 325 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
 326 leader sequence
 328 <400> SEQUENCE: 12
 329 Arg Arg Arg Arg Arg Arg
 330 1 5
 333 <210> SEQ ID NO: 13
 334 <211> LENGTH: 18
 335 <212> TYPE: DNA
 336 <213> ORGANISM: Artificial Sequence
 338 <220> FEATURE:
 339 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
 340 leader sequence
 342 <220> FEATURE:
 343 <221> NAME/KEY: CDS
 344 <222> LOCATION: (1)..(18)
 346 <400> SEQUENCE: 13
 347 cga cga cga cga cga cga 18
 348 Arg Arg Arg Arg Arg Arg

VERIFICATION SUMMARY

PATENT APPLICATION: US/10/534,130A

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